

INFORMATION SHEET

ORDER NO. R5-2005-_____
STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
INTERSTATE 5 FREEWAY LANDSCAPE IRRIGATION
SHASTA COUNTY

GENERAL INFORMATION

The State of California, Department of Transportation, (hereafter User) intends to use 11.7 million gallons per year of recycled water from the City of Shasta Lake's wastewater treatment facility for landscape irrigation of Interstate 5 from Mile Post R21.0 to R22.4 in Section 6, T32N, R4W and Sections 29 and 32, T33N, R4W, MDB&M. Surface water drainage from the site is to Moody Creek and Salt Creek, tributary to Stillwater Creek and Churn Creek, respectively, both of which are tributary to the Sacramento River.

The City of Shasta Lake Wastewater Treatment Plant (WWTP) treats approximately 0.7 mgd average dry weather flow, and has a design average dry weather flow of 1.3 mgd. Treated effluent from the Shasta Lake WWTP is discharged to Churn Creek in the winter months and is used for irrigation and other recycled water uses in the summer months. The Shasta Lake WWTP provides advanced secondary level treatment with average effluent concentrations of BOD of less than 3 mg/L; and average suspended solids of less than 3 mg/L. The effluent that the User intends to use meets the definition for "Disinfected Tertiary Recycled Water" established by the State of California, Department of Health Services in Title 22, Division 4, Chapter 3, Section 60301.230. Biosolids generated by the Shasta Lake WWTP are disposed at a local sanitary landfill. The WWTP is regulated under Waste Discharge Requirements Order No. 5-01-217 (NPDES No. CA0079511).

TITLE 22 RECYCLED WATER CRITERIA

The Department of Health Services (DHS) has established statewide recycling water criteria effective 2 December 2000 in Chapter 3, Division 4, Title 22, California Code of Regulations (CCR), Section 60301 et seq. (hereafter Title 22) for the use of recycled water.

Title 22, Section 60304(c) states that recycled water used for irrigation of freeway landscaping shall be "...at least disinfected secondary-23 recycled water".

Title 22 contains the following definitions:

Disinfected Secondary-23 Recycled Water Section 60301.225 defines Disinfected Secondary-23 Recycled Water as "... recycled water that has been oxidized and disinfected so that the median concentration of total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last seven days for which analysis have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period."

Oxidized Wastewater Section 60301.650 defines oxidized wastewater as "... wastewater in which the organic matter has been stabilized, is nonputrescible, and contains dissolved oxygen."

BASIS FOR RECYCLING CONDITIONS

The effluent limits, prohibitions, and specifications in these Recycling Requirements require the use of recycled water that has been treated to a standard of “Disinfected Secondary-23 Recycled Water” as defined above.

Discharge Prohibitions

The requirements prohibit the discharge of recycled water to surface waters or surface water drainage courses by direct or indirect discharge or windblown spray and prohibit application of recycled water beyond the boundaries of the landscape area.

Recycled Water Limitations

The limits for total coliform bacteria of 23 MPN per 100 ml, and 240 MPN per 100 ml in more than one sample in any 30-day period, are the limits specified in Title 22 for Disinfected Secondary-23 Recycled Water. These limits are required because of the proposed use of recycled water for freeway landscape irrigation.

Recycled Water Specifications

The Recycled Water Specifications limit the areas where recycled water will be used and the use of recycled water as specified in Title 22.

Monitoring and Reporting

The effluent analyses required in the monitoring and reporting section of these requirements are also required in the Monitoring and Reporting Program for the City of Shasta Lake Wastewater Treatment Plant. This monitoring may be submitted by the staff of the Shasta Lake WWTP and can serve as the monitoring report for these requirements.